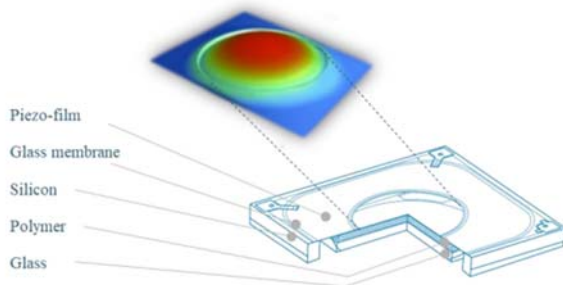


Exhibit 4

U.S. Patent 7,646,544 ('544 Patent) Claim Chart

The Accused Products include at least one TLens from poLight. Such Accused Products incorporate the TLens in an infringing manner.

| | '544 Patent Claim Language | Accused Products |
|-----|---|---|
| Pre | 1. A fluidic optical device, comprising: | The Accused Products, on information and belief, include at least one TLens. The TLens is a “fluidic optical device.” The use of a polymer, as may be used in the TLens, is the use of an optical “fluid” or gel, which includes polymers. See, e.g., '544 Patent at 8:14-15 (“fluid 104 may include fluorinated polymers such as perfluorinated polyether (PFPE) . . .”). |
| A | a skeleton having an aperture and a reservoir in fluid communication with the aperture, wherein the aperture and reservoir are unitary to the skeleton; | <p>The TLens meets this limitation.</p>  <p>Figure 2 poLight TLens® implementation.</p> <p>The skeleton may include the silicon housing that may form the support structure. The reservoir may include a space in which the polymer (optical fluid) is placed. The aperture may include an optical path through the top layer, polymer and second layer, which may be designed to pass the light. The aperture and reservoir may be part of the skeleton and unitary to it.</p> |

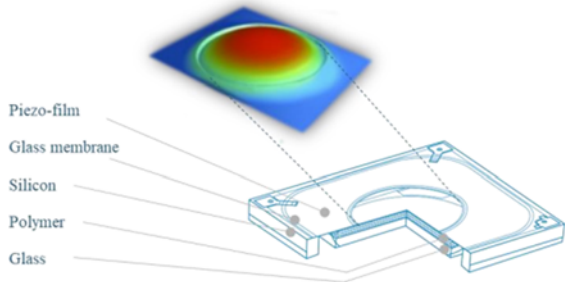
| | | |
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| | | <p>TLens Principle</p> <p>poLight Schematic:</p> |
| B | a fluid enclosed within the aperture and reservoir; and | <i>See, e.g., the polymer.</i> |
| C | one or more optical surfaces that at least partially bound the aperture; | <i>See, e.g., the glass membrane and/or glass support:</i> |
| D | wherein in response to displacement of the fluid as a result of a distortion of the reservoir at least one of the one or more optical surfaces is displaced from an initial position to vary an optical property of the device, | <p>“The piezoelectric film deposited onto the glass membrane acts as a bimorph actuator. By applying a voltage to the electrodes of the piezoelectric layer, it contracts and bends the glass membrane to a spherical shape and deforms the polymer to create the variable focusing lens (Figure 1).” <i>See, e.g.,</i> Passive athermalisation of compact imaging lens and camera using TLens® tunable lens. at p. 1, available at: https://s201.q4cdn.com/176420087/files/doc_downloads/technical_papers/2023-01-20_poLight-Passive-athermalisation-of-camera-using-TLens-V1.0.pdf</p> |

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| E | and wherein there are sufficient restoring forces in at least a portion of the displaced reservoir, fluid or optical surface to restore the displaced optical surface to its initial position upon release of a distorting force applied to the reservoir. | Once voltage is withdrawn, lens goes back to state in left side of Figure above. |
|---|--|--|

U.S. Patent 8,064,142 ('142 Patent) Claim Chart

The Accused Products include at least one TLens from poLight. Such Accused Products incorporate the TLens in an infringing manner.

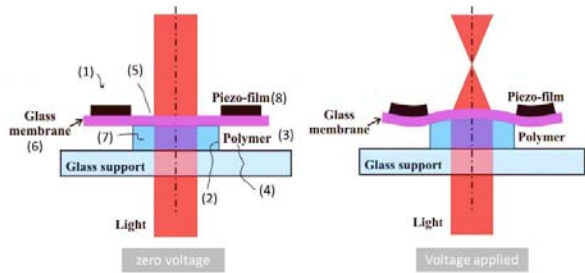
| | '142 Patent Claim Language | Accused Products |
|-----|--|--|
| Pre | 42. A fluidic lens device, comprising: | The Accused Products, on information and belief, include at least one TLens. The TLens is a “fluidic optical device.” The use of a polymer, as in the TLens, is the use of an optical “fluid” or gel, which includes polymers. See, e.g., '544 Patent at 8:14-15 (“fluid 104 may include fluorinated polymers such as perfluorinated polyether (PFPE) . . .”). |
| A | a fluidic lens having a first optical surface, a second optical surface; and | <p>The TLens has a first optical surface and a second optical surface. The first includes a deformable material (glass membrane 6). The second optical surface includes a rigid material (glass support in figure below). Further, the lens can be used repeatedly and is elastic. It does not permanently deform, but goes back to its original shape.</p> <p>TLens Principle</p> <p>poLight Schematic:</p> |
| B | a support member disposed between the first and second optical | The support member may include a silicon packaging/support member that may hold the TLens structure together, including the first and second optical surfaces. |

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| | surfaces defining a chamber, wherein said support member is at least partially rigid; |  <p>Figure 2 poLight TLens® implementation.</p> |
| C | wherein the chamber is filled with a fluid; | <i>See, e.g.</i> , optical fluid (Polymer 4 in figure above) disposed between the first and second optical surfaces. |
| D | wherein the first optical surface, the second optical surface, or the support member are configured such that application of an actuation force to one or more of the first optical surface, the second optical surface, or the support member results in a change in pressure in the chamber, thereby | <p>The TLens has an actuator disposed in communication with first optical surface (the piezo-film 8 in communication with glass membrane 6).</p> <p>“The piezoelectric film deposited onto the glass membrane acts as a bimorph actuator. By applying a voltage to the electrodes of the piezoelectric layer, it contracts and bends the glass membrane to a spherical shape and deforms the polymer to create the variable focusing lens (Figure 1).” <i>See, e.g.</i>, Passive athermalisation of compact imaging lens and camera using TLens® tunable lens. at p. 1, available at: <https://s201.q4cdn.com/176420087/files/doc_downloads/technical_papers/2023-01-20_poLight-Passive-athermalisation-of-camera-using-TLens-V1.0.pdf></p> |

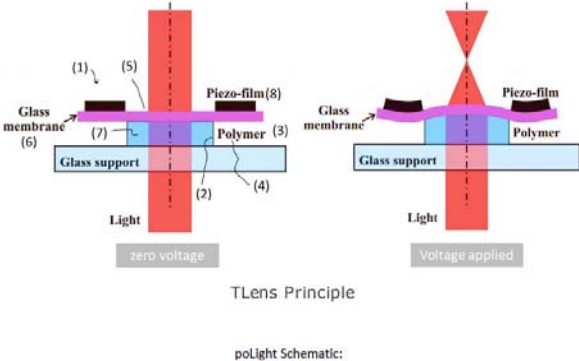
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| | resulting in a deflection of one or more of the optical surfaces and thereby changing one or more optical properties of the fluidic lens. | |
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U.S. Patent 8,605,361 ('361 Patent) Claim Chart

The Accused Products include at least one TLens from poLight. Such Accused Products incorporate the TLens in an infringing manner.

| | '361 Patent Claim Language | Accused Products |
|-----|---|--|
| Pre | 1. A fluidic optical device, comprising: | The Accused Products, on information and belief, include at least one TLens. The TLens is a “fluidic optical device.” The use of a polymer, as in the TLens, is the use of an optical “fluid” or gel, which includes polymers. See, e.g., '544 Patent at 8:14-15 (“fluid 104 may include fluorinated polymers such as perfluorinated polyether (PFPE) . . .”). |
| A | a first optical surface that includes an deformable material; | <p>The TLens has a first optical surface that includes a deformable material (glass membrane 6).</p>  <p>TLens Principle</p> <p>poLight Schematic:</p> |
| B | a second optical surface that includes a rigid material; | The TLens has a second optical surface that includes a rigid material (glass support in figure above). |
| C | an optical fluid disposed between | <i>See, e.g.</i> , optical fluid (Polymer 4 in figure above) disposed between the first and second optical surfaces. |

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| | first and second optical surfaces; | |
| D | and an actuator disposed in communication with first optical surface; | The TLens has an actuator disposed in communication with first optical surface (the piezo-film 8 in communication with glass membrane 6) |
| E | wherein activation of actuator results in a deformation of first optical surface and displacement of optical fluid; | When the piezo actuator is activated, the first optical surface (glass membrane 6) may deform and displace the optical fluid (polymer). |
| F | wherein deformation of first optical surface and displacement of optical fluid result in a change in an optical property of the device. | <p>“The piezoelectric film deposited onto the glass membrane acts as a bimorph actuator. By applying a voltage to the electrodes of the piezoelectric layer, it contracts and bends the glass membrane to a spherical shape and deforms the polymer to create the variable focusing lens (Figure 1).”</p> <p>See, e.g., Passive athermalisation of compact imaging lens and camera using TLens® tunable lens. at p. 1, available at:</p> <p><https://s201.q4cdn.com/176420087/files/doc_downloads/technical_papers/2023-01-20_poLight-Passive-athermalisation-of-camera-using-TLens-V1.0.pdf></p> |

| | '361 Patent Claim Language | Accused Products |
|-----|--|---|
| Pre | 18. A fluidic optical device, comprising: | The Accused Products, on information and belief, include at least one TLens. The TLens is a “fluidic optical device.” The use of a polymer, as in the TLens, is the use of an optical “fluid” or gel, which includes polymers. See, e.g., '544 Patent at 8:14-15 (“fluid 104 may include fluorinated polymers such as perfluorinated polyether (PFPE) . . .”). |
| A | a first optical surface that includes an elastic material; | <p>The TLens has a first optical surface that includes a deformable material (glass membrane 6). Further, the lens can be used repeatedly and is elastic. It does not permanently deform, but goes back to its original shape.</p>  <p>TLens Principle</p> <p>poLight Schematic:</p> |
| B | a second optical surface that includes a rigid material; | The TLens has a second optical surface that includes a rigid material (glass support in figure above). |
| C | an optical fluid disposed between first and second optical surfaces; | The optical fluid (Polymer 4 in figure above) is disposed between the first and second optical surfaces. |
| D | an actuator disposed in communication with first optical surface; | The TLens has an actuator disposed in communication with first optical surface (the piezo-film 8 in communication with glass membrane 6) |

| | | |
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| E | wherein activation of actuator results in elastic deformation of first optical surface and displacement of optical fluid; | When the piezo actuator is activated, this deforms the first optical surface (glass membrane 6) and displaces the optical fluid (polymer). |
| F | wherein deformation of first optical surface and displacement of optical fluid result in a change in an optical property of the device; | “The piezoelectric film deposited onto the glass membrane acts as a bimorph actuator. By applying a voltage to the electrodes of the piezoelectric layer, it contracts and bends the glass membrane to a spherical shape and deforms the polymer to create the variable focusing lens (Figure 1).” <i>See, e.g.,</i> Passive athermalisation of compact imaging lens and camera using TLens® tunable lens. at p. 1, available at: < https://s201.q4cdn.com/176420087/files/doc_downloads/technical_papers/2023-01-20_poLight-Passive-athermalisation-of-camera-using-TLens-V1.0.pdf > |
| G | and an image sensor configured to receive light transmitted through said first and second optical surfaces and optical fluid. | The TLens is used with an image sensor. <i>See e.g., Id.</i> at p. 5 (describing use of 13-megapixels image sensor). |